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10/562,947

03/13/2008

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EXAMINER

FISCHER, JUSTIN R

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

10/13/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/562,947 | Applicant(s) SUZUKI ET AL. | |
| | Examiner Justin R. Fischer | Art Unit 1791 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 10-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 10-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 8, 2009 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 5, 6, and 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda (JP 59-196338, of record) and further in view of Imamura (US 3,913,652, of record) and Scriver (US 4,192,366, of record).

Ueda teaches a tread composition comprising between 5 and 60 phr of natural rubber and/or polyisoprene having a cis 1,4 content greater than 90 percent (Abstract). In this instance, the disclosure of Ueda fully encompasses the claimed combination, it being further noted that a cis 1,4 content of about 99 percent is consistent with typical or conventional tread compositions, as shown for example by Scriver (Column 2, Lines 20-25). Ueda, however, is completely silent with respect to the Mooney viscosity of the cis

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1,4 polyisoprene. In any event, the claimed viscosity is consistent with the high cis 1,4 polyisoprenes used in the tire industry, as shown for example by Imamura (Column 2, Lines 22-25). Absent any conclusive showing of unexpected results, one of ordinary skill in the art at the time of the invention would have found it obvious to use a cis 1,4 polyisoprene having the claimed Mooney viscosity.

Regarding claims 2 and 3, Ueda broadly teaches the use of natural rubber and cis 1,4 polyisoprene at a total loading between 5 and 60 percent (based on 100 phr of total rubber components). Based on the general disclosure of Ueda, one of ordinary skill in the art at the time of the invention would have found it obvious to use more natural rubber, less natural rubber, or the same amount of natural rubber, as compared to the cis 1,4 polyisoprene content.

As to claims 5 and 6, the rubber composition of Ueda includes carbon black (e.g. HAF) at a loading of 50 phr (Table 2).

Regarding claims 10 and 11, the language “used for tread” and “used for a casing member” do not further define the makeup of the claimed rubber composition.

As to claims 13 and 14, the disclosed loadings would have been obvious to one having ordinary skill in the art since they are consistent with “typical” or conventional loadings, as shown for example by Scriver. It is further noted that applicant has not provided a conclusive showing of unexpected results to establish a criticality for the claimed loadings.

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4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda, Sriver, and Imamura as applied in claim 1 above and further in view of Inui (US 5,191,003, of record).

As noted above, the composition of Ueda includes HAF carbon black. While the reference is silent with respect to the nitrogen adsorption specific surface area, HAF carbon blacks are known to have a surface area greater than 70 m²/g, as shown for example by Inui (Column 4, Lines 13-25). Absent any conclusive showing of unexpected results, one of ordinary skill in the art at the time of the invention would have found it obvious to use a carbon black having the claimed surface area.

5. Claims 1, 3-6 and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Segatta (US 5,396,940, of record) and further in view of Imamura and Sriver.

Segatta is directed to a rubber composition comprising 5-95 phr of epoxidized natural rubber (claimed natural rubber), 5-95 phr of cis 1,4 polyisoprene, and 5-85 phr of silica (Column 1, Lines 63+). In this instance, given the general disclosure of Segatta, one of ordinary skill in the art at the time of the invention would have found it obvious to use a combination of natural rubber and cis 1,4 polyisoprene.

While Segatta is silent with respect to the cis 1,4 content and associated Mooney viscosity, the claimed characteristics are consistent with the conventionally used polyisoprene rubbers in the tire industry, as shown for example by Imamura (Column 2, Lines 22-25) and Sriver (Column 2, Lines 20-25). Absent any conclusive showing of

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unexpected results, one of ordinary skill in the art at the time of the invention would have found it obvious to use the claimed cis 1,4 polyisoprene.

Regarding claims 3 and 4, the total content of natural rubber and cis 1,4 polyisoprene is 100 phr.

As to claims 5 and 6, the composition of Segatta includes between 5 and 85 phr of silica having a surface area between 40 and 600 m²/gram. Absent any conclusive showing of unexpected results, one of ordinary skill in the art at the time of the invention would have found it obvious to select a surface area of at least 180 m²/gram.

Regarding claims 10 and 11, the language "used for tread" and "used for a casing member" do not further define the makeup of the claimed rubber composition.

As to claim 12, the rubber composition of Segatta is used for the manufacture of tire treads and/or carcass plies (casing member).

With respect to claims 13 and 14, the disclosed loadings would have been obvious to one having ordinary skill in the art since they are consistent with "typical" or conventional loadings, as shown for example by Scriver. It is further noted that applicant has not provided a conclusive showing of unexpected results to establish a criticality for the claimed loadings.

Response to Amendment

6. The declaration under 37 CFR 1.132 filed October 8, 2009 is insufficient to overcome the rejection of claims 1, 3-6, and 10-14 based upon Ueda or Segatta as set forth in the last Office action because: Table A fails to provide a conclusive showing of unexpected results for the claimed range between 5% and 60% (ratio of synthetic

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polyisoprene to total of said polyisoprene and natural rubber). In particular, Example 3 (inventive example) and Comparative Example B (non inventive example) appear to demonstrate almost identical properties and thus, Table A fails to provide a conclusive showing of unexpected results for the claimed range (ratio of 50/50 and 65/35 exhibit almost identical properties).

Response to Arguments

7. Applicant's arguments filed October 8, 2009 have been fully considered but they are not persuasive.

Applicant alleges that the claimed range between 5% and 60% unexpectedly contributes to high wear resistance and durability of the rubber composition. Applicant points to the above noted Declaration to support this position.

As detailed above, however, the Declaration is not persuasive. It is further noted that Segatta expressly teaches a rubber composition having 95 phr of epoxidized natural rubber and 5 phr of an additional rubber component, including cis 1,4 polyisoprene. In this instance, there are only nine possible combinations and thus, the reference is seen to expressly disclose a rubber composition including 95 phr of natural rubber (ENR) and 5 phr of cis 1,4 polyisoprene (and such anticipates the claimed invention, independent of the exact cis 1,4 bond content). Lastly, regarding Ueda, it is additionally noted that the Comparative Examples do not constitute the closest prior art of record (rubber composition of reference includes polybutadiene rubber and styrene butadiene rubber). It is suggested that applicant amend the claim to define a

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composition "consisting" of natural rubber and cis 1,4 polyisoprene to overcome the rejection with Ueda (or incorporate dependent claim 3 into independent claim 1).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R. Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Justin Fischer
/Justin R Fischer/
Primary Examiner, Art Unit 1791
October 9, 2009